Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of

Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996	)	CC Docket No. 98-146

REPLY COMMENTS BY ALCATEL USA, INC.

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CONTENTS

I. INTRODUCTION AND SUMMARY 1

II. ASYMMETRICAL REGULATION 2

III. LINE CARDS AND DERIVED FACILITIES 3

IV. PACKET SWITCHING EXCLUSION 4

V. CONCLUSION 6

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REPLY COMMENTS

I. Introduction and Summary

In its Comments in the response to the *Advanced Services NOI*, Alcatel USA made several suggestions that would help accelerate the deployment of advanced services to all Americans.[1] These recommendations focused on the deployment of DSL capabilities in digital loop carrier (DLC) systems and remote DSLAMs, systems of special importance to rural subscribers and others located long distances from central offices. The recommendations covered the tracking of remote DSL deployment and subscriptions, the use of derived facilities, the exclusion of line cards from unbundling or collocation, expansion and clarification of the packet switching exclusion, and the possibility of applying universal service funding toward advanced services deployment. After reviewing the comments submitted by others, we believe it would be useful to provide further information on the line card and derived facility issue and the unbundling exception as well as address the systemic problem of asymmetrical regulation. Detailed comments on these subjects follow in the next three sections.

[1] See Alcatel USA Comments, September 24, 2001.

II. Asymmetrical Regulation

Several comments addressed the glaring disparity between the level of broadband service delivered with cable modem technology as compared to DSL-based service. This disparity is attributed to the "asymmetrical regulation" between the cable and telephone industries and the resulting clear regulatory bias in favor of cable. As the leading supplier of DSL lines in the United States and indeed the world, Alcatel can confirm that because of these regulatory disparities the growth of DSL in the United States has not kept apace of several other countries, including South Korea and Canada.[2] The problem of lagging deployment is especially acute for customers served by remote access systems. Roughly one-third of residential subscribers in this country are served by these remote access systems. This is particularly true of rural subscribers who typically are located at a greater distance from a serving central office. The largest embedded base of remote access systems is the Litespan®-2000/2012 manufactured by Alcatel. We developed the ability to upgrade these systems to support DSL services. Deployment of such upgrades had begun in earnest last year; however, with the uncertainty surrounding the federal and state regulation of remotely provisioned advanced services, including potential rules that would greatly increase the cost of remote terminals[3], deployment has now stalled with no more than 15 percent of such systems having been upgraded to support DSL.

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[2] See, for instance, the OECD chart in the "Broadband blues" article, The Economist, June 21, 2001.

[3] Various parties have proposed that the ILECs be required to deploy artificially larger cabinets, increase the power supplies and heat dissipation capabilities, include a line distribution frame, and add interconnection arrangements to sub units of the transmission (transport) facility to the central office.

III. Line Cards and Derived Facilities

Starting with our Comment filing for the *Collocation FNPRM*, Alcatel has repeatedly and clearly explained that line cards *cannot* be treated as unbundled network elements subject to collocation and/or interconnection.[4] *Line cards are sub-components of larger network elements that cannot be separately accessed or operated.* The internal hardware and software interconnections between the line cards and the rest of the system are a) proprietary and unique to each manufacturer, b) the basis of patents and trade secrets and c) under continual revision. Alcatel did not design its remote access systems to support a bizarre arrangement whereby different companies own different circuit cards in the same system. Simply stated, these systems cannot support such an arrangement.

It should also be apparent that it is absolutely not feasible to install foreign line cards that perform different functions or have different capabilities than the line cards specifically designed for individual DSLAM and NGDLC systems. Nor, for that matter, is it possible to install any line cards that are not manufactured or licensed by the system manufacturer.[5] These systems include many sub-components, including (but not limited to) line cards, shelves, bank control units, transport interfaces and operating software. All these components are designed to operate in concert with the interfaces and derived facilities the systems support.

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[4] See Alcatel's October 12, 2000, Comments (p. 19) and November 14, 2000, Reply Comments (p. 4) on the Collocation FNPRM.

[5] Although the discussion has centered on line cards in NGDLC systems that support DSL capabilities, the issue applies to DSLAMs as well.

What *is* technically feasible is to access and interconnect with the end-to-end derived facilities through standard interfaces. Such facilities can be accessed in central offices through interconnection devices such as OCDs and at the network interface devices ("NIDs") at customer premises. (This is similar to arrangements with copper facilities that extend from main distributing frames in central offices to the NIDs.)

Such end-to-end, derived DSL facility arrangements could be used to provide DSL service capabilities to competing operators via wholesale or other agreements. Several comments in this proceeding included strong arguments for not applying unbundling requirements to advanced services at all.[6] We further note that the Commission has already approved in the *Pronto Order* the use of a voluntary broadband service option.[7] It provides the same service capabilities as an unbundled network element for derived DSL facilities and may be a better model for nationwide application (subject to service provider input).

Extending the unbundling rules to the derived DSL facilities would likely deter DSL deployment because of the current TELRIC rules among other reasons.[8]

IV. Packet Switching Exclusion

In its *Subloop Unbundling Order*,[9] the Commission excluded packet switching equipment from unbundling requirements, subject to specific exceptions as noted

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[6] See, for example, comments by USTA, Verizon, Qwest, BellSouth and SBC.

[7] See SECOND MEMORANDUM OPINION AND ORDER, CC Docket No. 98-141, adopted September 7, 2000 (commonly referred to as the *Pronto Order*).

[8] Alcatel's recommendation for a derived DSL facility UNE in our Comment filing was offered solely as a technically feasible alternative to the technically *unfeasible* line card idea within the scope of the unbundling rules. It was also predicated on the expectation that TELRIC will be significantly modified (or withdrawn) so as to not be a continuing impediment to widespread DSL deployment.

below. Such equipment included DSLAMs placed at remote terminals. In an unrelated proceeding that resulted in the *Pronto Order*, the Commission determined that the DSL line cards SBC proposed to use in its NGDLC systems provided DSLAM capabilities and also met the packet switching "Advances Services" definition in the SBC and Ameritech Merger Conditions.[10]

The Commission now should declare that all remote components and derived facilities that support packet-based services are excluded from unbundling, regardless of the presence or absence of merger conditions. This includes derived DSL arrangements whether supported by DSLAMs or with NGDLC or other DLC equipment with "DSLAM capabilities."[11] This, of course, would not be necessary if all advanced services and associated equipment were excluded *totally* from unbundling.

The exceptions to the packet switching unbundling exclusion at remote locations currently include each of the following, as paraphrased from the *Subloop Unbundling Order*.[12]

i. Where a DLC has been installed.

ii. When there are no spare copper loops "capable of supporting the *x*DSL services the requesting carrier seeks to offer."

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[9] See Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Third Report and Order and Fourth Further Notice of Proposed Rulemaking, 15 FCC Rcd 3696, 3839-40 (1999).

[10] *Id.*, *Pronto Order*, at 12.

[11] That is, capabilities that support packet-based DSL services, such as ATM bank control units or statistical mulltiplexers and ATM-based line cards (for instance, ADSL and G.shdsl).

[12] *Id.*, Appendix C.

iii. When the incumbent LEC does not allow a CLEC to install its own DSLAM or the CLEC has not arranged for virtual location at "the remote terminal, pedestal, controlled environmental vault or other interconnection point."

iv. Where the incumbent LEC has installed "packet switching capability" for its own use.

As noted above, the Commission needs to clarify that the unbundling exclusion and the exceptions apply equally to remote DSLAMs, regardless of where they are located within a DLC remote terminal service area,[13] and to DLC equipment and its associated derived facilities. This will prevent uneconomic deployment decisions that are generated solely from regulatory arbitrage, thereby allowing the service capabilities to be extended to more areas with the same capital investment levels.

V. Conclusion

Alcatel unequivocally supports efforts to bring advanced services to all Americans. These services had been growing at a brisk pace; however, by at the end of 2000, they still only reached 2.6% of small business and residential subscribers. Of particular concern are those locations beyond a central-office based DSLAM's capability to deliver at least 200 kb/s in each direction.

In order to accelerate advanced services delivery, steps must be taken to promote the deployment of DSLAMs as well as DSL-equipped DLC and NGDLC systems at remote locations. The most important step is to reduce or eliminate

[13] The DSLAM equipment may be housed in the DLC remote terminal enclosure where conditions permit (space, power, thermal limits, security), in an adjacent cabinet on the same rights-of-way, at separate locations within the Carrier Serving Area, including (but not limited to) SAI and building terminal locations.

regulatory impairments to the deployment of such equipment. Of paramount importance is the rejection of the notion of line cards or other sub-components of DLC/NGDLC and DSLAM systems as candidates for physical or virtual collocation or unbundling. Instead, the Commission should pursue options that either eliminate advanced services unbundling altogether or, at the very least, limit such unbundling to end-to-end derived facilities. Even then such unbundling must be subject to previously imposed and newly clarified exceptions to the packet switching unbundling exclusion.

Respectfully submitted,

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This is to certify that one (1) original and four (4) true and accurate copies of the foregoing was hand delivered this 24th day of September, 2001, to the Office of the Secretary, Magalie Roman Salas, Federal Communications Commission, 445 Twelfth Street, SW, TW-A325, Washington, DC 20554 and to the following parties:

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